

Appl. No. 10/694,130
Atty. Docket No. 6373R2RD2
Amdt. Dated March 04, 2005
Reply to Final Office Action Dated January 21, 2005
Customer Number 27752

REMARKS

Claim 1 is amended to specify that the composition does not contain a synthetic linear polymeric polycarboxylate salt and the limited water content functions to inhibit hydrolysis of the polyphosphate.

Claim 10 is amended to exclude synthetic linear polymeric polycarboxylate salts as "tartar control agents" to be consistent with the amendment to Claim 1. The synthetic linear polymeric polycarboxylate salts have been indicated to be useful as tartar control agents.

It is believed these changes do not involve any introduction of new matter. Consequently, entry of these changes is believed to be in order and is respectfully requested.

Claims 1 to 12 remain pending in the application.

Claims Rejection Under 35 USC §103(a)

It is stated in the Office Action that the rejection of Claims 1-12 under 35 USC §103(a) as being unpatentable over Gaffar et al. (US 4,627,977) in view of Crisanti et al. (US 4,902,497) is maintained.

Applicants respectfully traverse the Examiner's rejection of the claims under 35 USC 103(a) and submit that Claims 1-12 as now presented are distinct and unobvious from the cited art.

As now claimed, the present single-phase compositions are distinct from the Gaffar compositions which require the presence of from 0.05% to 3% of a water-soluble alkali metal or ammonium synthetic anionic linear polymeric polycarboxylate salt to inhibit enzymatic hydrolysis of the polyphosphate salt in saliva. The present claimed compositions specifically do not contain such synthetic anionic linear polymeric polycarboxylate salt and are formulated with a limited water content to minimize the hydrolysis of the polyphosphate, which would reduce the availability of polyphosphate in the composition.

There is no disclosure whatsoever in Gaffar relating to the use of stannous as antigingivitis and antiplaque agent. In fact, Gaffar's compositions would only have stannous if stannous fluoride were selected as the fluoride source. There is no disclosure to use a stannous salt to supply stannous ions much less to use a stannous

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salt other than stannous fluoride or stannous monofluorophosphate as contemplated in the present compositions. There is no specific teaching in Gaffar to limit the water content to no more than 20% to minimize the hydrolysis of the polyphosphate. Indeed, Gaffar exemplifies a dentifrice composition comprising a polyphosphate (Hexaphos), sodium fluoride, and 37.578% water. Gaffar recognizes that polyphosphates are subject to enzymatic hydrolysis and thus teaches the use of the combination of fluoride and synthetic linear polycarboxylate to inhibit such hydrolysis.

It is asserted that Gaffar teaches that "other anticalculus agents" may be incorporated in the composition and that it would have been obvious to use a stannous compound such as taught by the secondary reference Crisanti et al. as such "other anticalculus agent" in Gaffar's composition and thus arrive at the present invention. Crisanti indeed teaches the use of stannous compounds such as stannous chloride and stannous gluconate complexed with certain acids or alcohols as anticalculus agents and that the complexed stannous compound provides sustained levels over extended periods of time, and thus improved anticalculus activity.

Applicants respectfully submit that including Crisanti's stannous compounds into Gaffar's composition would still not arrive at the presently claimed compositions. The combination would still require the synthetic linear polymeric polycarboxylate required by Gaffar to inhibit enzymatic hydrolysis of the polyphosphate component. The present claims specifically exclude such synthetic linear polymeric polycarboxylate. Instead, the present compositions are formulated with a limited total water content of not more than 20% to minimize polyphosphate hydrolysis. There is no specific teaching or suggestion in either Gaffar or Crisanti with respect to limiting the water content of the compositions to avoid polyphosphate hydrolysis. Indeed, Gaffar's exemplification of a polyphosphate, Hexaphos, in a composition containing 37.578% added water teaches away from the present claimed composition, which contains significantly less water and does not contain Gaffar's synthetic linear polymeric polycarboxylate. Crisanti does not remedy this deficiency. Therefore, the claimed invention is unobvious and the rejection under 35 USC 103(a) should be withdrawn.

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CONCLUSION

Applicants have made an earnest effort to place their application in proper form and to distinguish the invention as now claimed from the applied references. In view of the foregoing, reconsideration of this application, entry of the amendments presented, withdrawal of the claims rejection under 35 USC 103(a) and allowance of Claims 1 to 12 are respectfully requested.

The Examiner is respectfully invited to telephone the undersigned representative if he believes an interview might be useful for any reason.

Respectfully submitted,

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March 04, 2005
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